



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,528	11/21/2001	Dennis L. Montgomery	42503-273340 ETV-014(U)	3104
909	7590	01/12/2006	EXAMINER CZEKAJ, DAVID J	
PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			ART UNIT 2616	PAPER NUMBER

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,528

Applicant(s)

MONTGOMERY, DENNIS L.

Examiner

Dave Czekaj

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-9 and 21-24 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 8-9 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chida (5930405) in view of Wang (6118817).

As for Claim's 1, 3, 5, 6, 8-9, and 21, Chida teaches inputting a first image, or a reference image, at a first resolution by the image sensing means. Chida then inputs a second image at a second, and lower, resolution by the input sensing means. If there is a differing area between the first two images that exceeds a predetermined threshold (Chida: Column 11, lines 3-8), then a third sensing means is inputted at a third, and higher, resolution by the sensing means and then stores this information that has changes in the first two sensing means (Chida: Column 3, line 55 to Column 4, line 2; see also Chida Figures 9-12). These Figures also show that the process is repeated for the frames that follow. Repeating the steps of comparing, determining and operating for a plurality of subsequent frames that follow the frame such that each of the plurality of sequential frames is operated upon in the step of operating, where the data stored

represents the plurality of the sequential frames stored at different resolutions (Chida: Column 8, line 54 to Column 9, line 27). However, Chida fails to teach compressing the images for reducing/increasing the frame storage size for a group of frames. Wang teaches that it is difficult to balance image quality with available bandwidth when the bandwidth is limited (Wang: column 2, lines 19-25). To help alleviate this problem, Wang discloses compressing the images for reducing the frame storage size for a first group of subsequent frames from a larger storage size to a smaller storage size when the predetermined threshold has not been exceeded (Wang: column 4, lines 40-54, wherein the predetermined threshold is the threshold, reducing the frame storage size is adjusting the quantization parameter) and increasing the frame storage size for a second group of frames from a smaller storage size to a larger storage size when the predetermined threshold has been exceeded (Wang: column 4, lines 40-54, wherein the predetermined threshold is the threshold, reducing the frame storage size is adjusting the quantization parameter). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Chida and add the increasing/decreasing frame size in order to obtain an apparatus that produces a high quality image.

As for Claim 2, Chida teaches the predetermined number of previous frames comprising a window of time (Chida: Column 6, lines 11-16).

As for Claim 4, although not disclosed, it would have been obvious to reduce the resolution to one half of the regular resolution (Official Notice). Doing so would have been obvious in order to more easily store/transmit multiple frames of data.

As for Claim 22, Chida teaches designating the updated frame as a new reference frame at a high resolution and comparing the next frame selected from the sequence of frames to the new reference frame to obtain a difference (Chida: Column 13, lines 10-27), but fails to specifically store the reference frame at the reduced resolution. Since the frames that do not have movement are already at a lower resolution and these are the frames that the reference frame is being compared to, it would have been obvious to one of ordinary skill to store the reference frame at the same lower resolution as the frames in which the reference is being compared to monitor motion. (Official Notice)

As for Claim's 23 and 24, many of the limitations have been addressed in the above rejections. Chida teaches placing the first group of images in memory at a lower resolution (Chida: Column 13, lines 37-41) and if there is a difference then the difference calculation step interpolates a second group of images that will be stored at a higher resolution (Chida: Column 3, line 55 to Column 4, line 2).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chida (5930405) in view of Wang (6118817) in further view of Freeman (5396284).

As for Claim 7, note the examiners rejection for claim 1, and in addition, Chida in view of Wang fail to teach redesignating the reference frame the previous target frame and redesignating the new target frame with another subsequent frame that follows the new reference frame, but Freeman does (Freeman: Column 5, lines 30-53). Since redesignating the new reference frame with the previous target frame is to simplify the

process of observation and use less memory, it would have been obvious to one of ordinary skill to reuse the previous target frame as the new reference frame.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (571) 272-7327. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJC
WU LE
PRIMARY EXAMINER